UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,633	01/11/2002	John William Richarson	PU 020008	8612

7590 06/13/2006

JOSEPH S. TRIPOLI
THOMSON MULTIMEDIA LICENSING INC.
2 INDEPENDENCE WAY
P.O. BOX 5312
PRINCETON, NJ 08543-5312

EXAMINER	
NG, CHRISTINE Y	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,633	RICHARSON ET AL.	
	Examiner	Art Unit	
	Christine Ng	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *17* is/are allowed.

6)☒ Claim(s) *1-7 and 11-16* is/are rejected.

7)☒ Claim(s) *8-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/27/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 4, 5, 7, 11-13, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,307,839 to Gerszberg et al.

Referring to claims 1 and 7, Gerszberg et al disclose an asynchronous transfer mode (ATM) digital subscriber line (DSL) head-end network; comprising:

A network control system (Figure 2, controller 100 in ISD 22), which manages call traffic through the head-end network by assigning traffic to voice channels based on available time slots (Figures 6A,6B) from a telephone company (Figure 1, local telephone company 34). The processor 102 in controller 100 in ISD 22 performs the dynamic bandwidth allocation process to assign the time slots in Figures 6A and 6B to traffic. Refer to Column 10, lines 21-35 and Column 15, lines 6-61. Also, trunk lines and therefore time slots are leased from local telephone companies for digital traffic. Refer to Column 1, lines 32-44 and Column 2, lines 12-39.

A plurality of customer premise equipment (Figure 1, CPE 10) units which provide customer line terminations with telephone service, the CPE units being coupled

to an ATM multiplexer (Figure 1, ISD 22). The ISD is "disposed near the customer's premises for multiplexing and coordinating many digital services onto a signal twisted-pair line..." (Column 2, lines 28-30). Also, the ISD 22 can read on an ATM multiplexer since it sends data to FMP 32 which outputs data to an ATM switching network. Refer to Column 5, lines 39-52; Column 6, lines 31-44; and Column 7, lines 60-64.

The network control system having an assignment mechanism (Figure 2, processor 102) which concentrates telecommunications traffic between the multiplexer (Figure 1, ISD 22) and an asynchronous transfer mode (ATM) switch (Figure 1, FMP 32) on the channels to compensate for a number of customer line terminations exceeding a number of voice channels. The processor 102 uses a dynamic bandwidth allocation scheme. As shown in Figures 6A and 6B, when there are too many voice calls and the frame does not have enough voice channels, data channels will be deallocated from data usage and allocated for voice. Refer to Column 10, lines 21-62 and Column 15, line 6 to Column 16, line 4.

Referring to claim 2, Gerszberg et al disclose in Figures 6A and 6B wherein the assignment mechanism allocates voice channels in accordance with a priority of a call. When one voice call comes in, a channel is deallocated from data usage and allocated for voice. If a second voice call comes in then another data channel will be deallocated from data usage and allocated for voice. As more voice calls come in, more data channels will be deallocated and allocated for voice since voice has a higher priority than data. Refer to Column 15, lines 6-61.

Referring to claim 4, Gerszberg et al disclose wherein the voice channels are

included on digital signal 1 (DS1) links to a telephone company switch (Figure 1, local telephone company 34). ISD 22 and local telephone company 34 are connected using ADSL, at T1 rate. Refer to Column 11, lines 14-28 and lines 54-63; and Column 14, lines 51-56.

Referring to claim 5, Gerszberg et al disclose in Figure 1 wherein the telecommunications traffic includes voice and data transfer. The ISD 22 and central office 34 communicate using DSL, which supports both voice and data. Refer to Column 5, lines 31-36.

Referring to claim 11, Gerszberg et al disclose in Figure 1 the step of additionally concentrating traffic by the telephone company (34). The central office of the telephone company 34 contains FMP 32 that can also perform the dynamic bandwidth allocation process like ISD 22. Refer to Column 5, lines 36-38 and Column 10, lines 21-35.

Referring to claims 12 and 15, Gerszberg et al disclose in Figures 6A and 6B wherein the step of managing the timeslots includes the step of assigning incoming and outgoing calls to the channels in accordance with a priority criterion (voice has higher priority than data). Refer to Column 15, lines 6-61.

Referring to claim 13, Gerszberg et al disclose in Figures 6A and 6B wherein the priority criterion include first-in first-out criterion. When one voice call comes in, a channel is deallocated from data usage and allocated for voice. If a second voice call comes in then another data channel will be deallocated from data usage and allocated for voice. Channels are allocated in the order the voice calls are received. Refer to Column 15, lines 6-61.

Referring to claim 16, Gerszberg et al disclose in Figure 1 the step of establishing virtual circuits through the head-end network to make connects between the telephone company (34) and the customer premise equipment devices (10). The ISD 22 and FMP 32 can output data to an ATM switching network. Since ATM utilizes virtual circuits identified by VPI/VCI, virtual circuits must be established throughout the network. Refer to Column 5, lines 39-49 and Column 7, lines 60-64.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,307,839 to Gerszberg et al.

Referring to claim 3, Gerszberg et al do not specifically disclose wherein the number of customer line terminations exceeds the number of voice channels by greater than 2.

However, Gerszberg et al disclose in Figures 6A and 6B that when one voice call comes in, a channel is deallocated from data usage and allocated for voice. If a second voice call comes in then another data channel will be deallocated from data usage and allocated for voice. As more voice calls come in, more data channels will be deallocated and allocated for voice since voice has a higher priority. Refer to Column 15, lines 6-61. Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to include that the number of customer line terminations exceeds the number of voice channels by greater than 2, the motivation being so that the system can support many voice calls.

Referring to claim 6, Gerszberg et al do not specifically disclose wherein the assignment mechanism is embodied in a software application stored on the network control system.

However, the processor 102 of ISD 22 in Figure 2 must have some type of means to control the dynamic bandwidth allocation process. Refer to Column 10, lines 21-62 and Column 15, line 6 to Column 16, line 4. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the assignment mechanism is embodied in a software application stored on the network control system, the motivation being in order to provide means to control the dynamic bandwidth allocation process.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,307,839 to Gerszberg et al in view of U.S. Patent No. 5,274,700 to Gechter et al.

Gerszberg et al do not disclose wherein the priority criterion includes priority of incoming calls over outgoing calls.

Gechter et al disclose an agent that prioritizes an incoming call over an outgoing call. When an incoming call is in process, that calls takes priority over an outgoing call. Refer to Column 9, line 55 to Column 10, line 14. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include

wherein the priority criterion includes priority of incoming calls over outgoing calls, the motivation being in order to prioritize calls when an incoming call and an outgoing call take place at the same time.

Allowable Subject Matter

6. Claim 17 is allowed.

7. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed March 26, 2006 have been fully considered but they are not persuasive.

Referring to the argument of independent claims 1 and 7 that Gerszberg et al do not disclose that the network control system has an assignment mechanism which concentrates telecommunications traffic to compensate for a number of customer line terminations exceeding a number of voice channels (page 5, line 19 to page 7, line 11): The processor 102 in Figure 2 uses a dynamic bandwidth allocation scheme. As shown in Figures 6A and 6B, when there are too many voice calls and the frame does not have enough voice channels, data channels will be deallocated from data usage and allocated for voice. Refer to Column 10, lines 21-62 and Column 15, line 6 to Column 16, line 4. Since data channels need to be reallocated for voice channels, this implies that there are more customer line terminations than the number of voice channels. If there were enough voice channels to accommodate all customer line terminations, data

channels would not have to be reallocated to voice channels. Furthermore, it is inherent that all network systems support thousands of customers, and a time frame only has a limited number of time slots.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

C. Ng CN
June 6, 2006

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600